THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 50

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte LESLIE W. PARTRIDGE

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Appeal No. 1996-1736
Application 08/418,267[1]

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HEARD: September 16, 1999

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Before URYNOWICZ, HAIRSTON, and RUGGIERO, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

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[1] Application for patent filed April 6, 1995. According to the appellant, the application is a continuation of Application 08/222,189, filed March 31, 1994, now abandoned; which is a continuation of Application 07/931,108, filed August 17, 1992, now abandoned; which is a continuation of Application 07/728,565, filed July 11, 1991, now abandoned; which is a continuation of Application 07/567,595, filed August 15, 1990, now U.S. Patent No. 5,055,963, issued October 8, 1991.

DECISION ON APPEAL

This is an appeal from the final rejection of claim 17.

The disclosed invention relates to a bipolar air ionizing apparatus for generating and releasing a flow of air that includes intermixed positive and negative ions.

Claim 17 is the only claim on appeal, and it reads as follows:

17. Bipolar air ionizing apparatus for generating and releasing a flow of air including intermixed positive and negative ions, comprising:

a housing having an air inlet passage and an ionized air outlet passage that is spaced apart from said inlet passage;

a fan disposed in said housing to draw a flow of air into said housing through said inlet passage for directing a flow of air and ions through said outlet passage and out into the external environment, said fan having a rotary hub and blades which include electrically insulating material on the surface thereof and which turns about a rotational axis that is aligned between said air inlet passage and said air outlet passage;

a cylindrical air duct of electrically insulating material encircling said fan and being concentrically oriented on said rotational axis to extend from said fan to said air outlet passage;

first and second pairs of air ionizing electrodes disposed in said housing at a location in the air flow path between said air inlet passage and said fan for producing positive ions about each of the first pair of electrodes and for producing negative ions about each of the second pair of

electrodes, each of the electrodes in said first and second pairs of electrodes being diametrically oriented about the rotational axis substantially laterally to the flow of air and equidistantly spaced from the rotational axis of the fans and being sufficiently spaced equidistantly apart about said rotational axis to enable said air flow to carry at least a portion of the positive and negative ions away from respective ones of said first and second pairs of electrodes and out of said housing through said outlet passage without neutralization of the ions from ones of the first and second pairs of electrodes by contact with other of said first and second pairs of electrodes; and

a high voltage supply connected to the first and second pairs of electrodes for applying high D.C. voltage of positive polarity to each of the electrodes of the first pair of electrodes and for applying high D.C. voltage of negative polarity to each of the electrodes of the second pair of electrodes to produce supplies of both positive and negative ions in said flow of air about the respective first and second pairs of electrodes to be carried in said air flow through said outlet passage.

The references made of record by the examiner are:[2]

Wooton et al. (Wooton)	3,504,227	Mar. 31, 1970
Ignatjev	3,873,835	Mar. 25, 1975
Adams	4,253,852	Mar. 3, 1981
Sasaoka et al. (Sasaoka)	4,317,661	Mar. 2, 1982
Halleck	4,729,057	Mar. 1, 1988

Claim 17 stands rejected under 35 U.S.C. § 103 as being

[2] Only the references to Sasaoka, Wooton and Adams were applied by the examiner in a prior art rejection.

unpatentable over appellant's admitted prior art in view of Sasaoka, Wooton and Adams.

Reference is made to the brief and the answer for the respective positions of the appellant and the examiner.

OPINION

The obviousness rejetion of claim 17 is reversed.

It is acknowledged in appellant's admitted prior art that "[p]ositive and negative high voltages are applied to separate electrodes," and that "[d]ispersal of the ions is usually accelerated by directing an airflow through the electrode region and out into the room" (Specification, page 2).

Sasaoka discloses (Figures 1 and 2) that it is known to configure an electronic air cleaner so that an ion generating source is located between the air inlet and the fan. The air outlet is located on the other side of the fan.

In Wooton, all of the different embodiments (Figures 2 through 4) only use a negative ion emitter. In the latter embodiment (Figure 4), all of the metal whiskers 58 located around the support ring 54 emit negative ions. The whiskers do not emit positive ions.

Adams teaches the use of insulated structures to prevent the neutralization of negative ions (column 4, lines 53 through 60). The ions produced by Adams are always negative.

Appellant argues (Brief, page 9) that "the Examiner's proposed assemblage of elements separately disclosed in these citations of prior art, without any direction for doing so found in the admitted prior art, or in any of the cited references, merely constitutes improper hindsight reconstruction of these references using the instructions for doing so that are found only in the appellant's own disclosure." Appellant's argument to the contrary notwithstanding, the examiner had no need to resort to appellant's disclosure for a teaching of specifically locating the ion generating source between the air inlet and the fan (Sasaoka) or for a teaching of the use of insulating structures to prevent the neutralization of the ions that are generated (Adams). On the other hand, we agree with appellant's argument (Brief, pages 9 and 10) that:

> [N]ot one of the citations of prior art in any way discloses a pair of ion-generating electrodes operating at opposite voltage polarities disposed upstream of the fan that creates the air flow past

> the electrodes for delivering substantially balanced supplies of positive and negative air ions in the outlet air stream. Nor does any one of the citations of prior art in any way disclose symmetrical arrangement of a pair of electrodes operable at opposite voltage polarities with the associated coaxial orientation of fan and cylindrical air duct as recited in claim 17, to assure the production of substantially balanced supplies of positive and negative air ions in the outlet air stream.

Neither the acknowledged prior art nor any of the applied references teaches or would have suggested the specific placement of the two different pairs of electrodes to produce positive and negative ions. As indicated supra, the pairs of whisker electrodes in Wooton only produce negative ions.

In summary, the obviousness rejection of claim 17 is reversed.

DECISION

The decision of the examiner rejecting claim 17 under 35 U.S.C. § 103 is reversed.

REVERSED

STANLEY M. URYNOWICZ, JR. Administrative Patent Judge	)	
KENNETH W. HAIRSTON Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JOSEPH F. RUGGIERO Administrative Patent Judge	)	

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